



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/841,666

04/24/2001

Mitsuhiro Tanaka

70868/55581

6486

21874 7590 01/19/2007
EDWARDS & ANGELL, LLP
P.O. BOX 55874
BOSTON, MA 02205

EXAMINER

NGUYEN, HOAN C

ART UNIT

PAPER NUMBER

2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/841,666	TANAKA ET AL.	
	Examiner	Art Unit	
	HOAN C. NGUYEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-9 and 17-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-9 and 17-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/2006 has been entered.

Claims 1-5 and 10-16 are cancelled.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature:

‘a cylindrical die roller having a matrix formed on a surface thereof in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another and being defined such that each of the square bottom faces has at least one diagonal inclined at a predetermined angle of between about 10 degrees and 40 degrees with respect to a rotation axis of the die roller” in claims 6-9.

Art Unit: 2871

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 2871

Claims 6-9, 22 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 6-9 cite the feature "a cylindrical die roller having a matrix formed on a surface thereof in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another and being defined such that each of the square bottom faces has at least one diagonal inclined at a predetermined angle of between about 10 degrees and 40 degrees with respect to a rotation axis of the die roller", which is not correlated to the feature in the paragraph [0080] of specification:

For example, each of the convex portions 3 is a quadrangular pyramid having a square bottom face in which the length of one side is 40 μ m, and a height of 2 μ m. The plural convex portions 3 are linearly continuously formed to configure a plurality of rows 6 of the convex portions. The plural rows 6 of the convex portions are arranged so as to be adjacently formed in parallel with one another, thereby configuring the rough face 5. In the convex portions 3, all ridges 4a to 4d which are linearly continuous are inclined at a predetermined angle θ with respect to one of edges 7a to 7d of the rectangular resin base material 2. The predetermined angle θ is selected to be 10° or more and 80° [or] less, and more preferably to be 20° or more and 40° [or] less. In the embodiment, the predetermined angle θ is selected to be 30° or $\pi/6$ radians.

Art Unit: 2871

"The diagonal of each of the square bottom faces" in claim 6-9 is not the same with "the ridges 4a to 4d" in the paragraph 80 (see attachment). "The rotation axis of the die roller" in claims 6-9 is not the same with "one of edges 7a to 7d of the rectangular resin base material 2" in the paragraph 80.

Therefore, the amended feature "each of the square bottom faces has at least one diagonal inclined at a predetermined angle of between about 10 degrees and 40 degrees with respect to a rotation axis of the die roller" in claims 6-9 considers as new subject matter.

New claims 22 and 29 cited the feature of "the concave or convex portions on the surface of the die roller configured as a hemisphere", which does not disclose in the original disclosure. Therefore, it is the new subject matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-9 and 17-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6-9 and 17-24 cited the features of apparatus or the method for producing the optical film with a cylindrical die roller. However, the die film 1 as Fig. 1 shown is different from the die roller 105 with pyramidal concave portions as Fig. 4 shown. The

Art Unit: 2871

die film 1 is not an optical film. The die film 1 is used to make the optical film 140 as Fig. 9-10 shown. Therefore, the die roller 105 is not used to make or produce the optical film as claims 6-9 and 17-24 cited, but it is used to make the die film 1, which is used to produce the optical film 140. The optical film is not made directly by the die roller.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-21 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Michiharu et al. (JP11147255) provided by applicant's IDS.

In regard to claims 17 and 24, Michiharu et al. (Figs. 1, 3, 8 and 9) an apparatus for producing an optical film comprising:

- a cylindrical die roller/cylindrical body (mold roller as Fig.1 shown) having a matrix formed on a surface, the die roller being rotated on a film to transfer the concave portions or convex portions to a surface of the film,

wherein

- the concave portions or convex portions formed on the surface of the die roller are continuously arranged so as to form linear rows on one virtual plane

Art Unit: 2871

obtained by developing the surface of the die roller, the linear rows bring adjacently arranged in parallel with one another and extending in a direction which forms a predetermined angle with respect to a side of the one virtual plane corresponding to a periphery of the cylindrical die roller.

Claims 18 & 25:

- the predetermined angle is between about 10 degrees and 80 degrees as discussed in previous final office action.

Claims 19 & 26:

- the predetermined angle is between about 10 degrees and 40 degrees as discussed in previous final office action.

Claims 20 & 27:

- the concave portions or convex portions formed on the surface of the die roller are configured as a pyramid as Fig. 9b shown.

Claim 21 & 28:

- the concave portions or convex portions formed on the surface of the die roller are configured as a regular pyramid Fig. 9b shown.

Claim 23:

- means for transferring the film to which the concave portions or convex portions are transferred to a surface of another film.

Art Unit: 2871

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HOAN C. NGUYEN
Examiner
Art Unit 2871

chn


ANDREW SCHECHTER
PRIMARY EXAMINER

Attachment

